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13

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25213	7590	11/02/2006	EXAMINER	
HELLER EHRMAN LLP 275 MIDDLEFIELD ROAD MENLO PARK, CA 94025-3506			STEADMAN, DAVID J	
			ART UNIT	PAPER NUMBER
			1656	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/788,564

Applicant(s)

BARR ET AL.

Examiner

David J. Steadman

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 47-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 47-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of the Application***

- [1] Claims 47-64 are pending in the application.
- [2] Applicant's amendment to the claims, filed on 11 August 2006, is acknowledged.  
This listing of the claims replaces all prior versions and listings of the claims.
- [3] Applicant's amendment to the specification, filed 11 August 2006, is acknowledged.
- [4] Receipt of a sequence listing in computer readable form (CRF), a paper copy thereof, a statement of their sameness, and a statement that no new matter has been added to the specification by the paper copy of the sequence CRF, all filed 11 August 2006, is acknowledged.
- [5] Receipt of a request under 37 CFR 1.47(b) to change inventorship, filed 11 August 2006, is acknowledged.
- [6] Applicant's arguments filed on 11 August 2006, have been fully considered and are deemed to be persuasive to overcome some of the rejections previously applied. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn.
- [7] The text of those sections of Title 35, U.S. Code not included in the instant action can be found in a prior Office action.

### ***Request to Change Inventorship***

**[8]** In view of the papers filed 11 August 2006, the inventorship in this nonprovisional application has been changed by the deletion of Kenneth Barr and Bruce Fahr.

The application will be forwarded to the Office of Initial Patent Examination (OIPE) for issuance of a corrected filing receipt, and correction of Office records to reflect the inventorship as corrected.

### ***Sequence Compliance***

**[9]** In order to perfect sequence compliance, applicant should submit a specification amendment directing entry of the sequence listing paper copy filed 11 August 2006 into the specification.

### ***Claim Rejections - 35 USC § 112, Second Paragraph***

**[10]** The rejection of claims 47-64 as being indefinite in the recitation of "PTP-1B" and "TC-PTP" is withdrawn in view of applicant's argument, which particularly notes the specification's specific definition of "PTP-1B" as being "wild-type PTP-1B or any functional truncated form thereof" (specification at paragraph 43) or "TC-PTP" as being "wild-type TC-PTP or any functional truncated form thereof" (specification at paragraph 48).

**[11]** The rejection of claims 47-48, 50-51, 56-57, and 59-61 as being indefinite and lacking antecedent basis in the recitation of "the exosite of PTP-1B," "the exosite

mutant,” or the “the exosite of TC-PTP” is maintained for the reasons of record and the reasons stated below. The rejection was fully explained in a prior Office action.

RESPONSE TO ARGUMENT: Applicant argues that in addition to the specification’s definition of “exosite” as a novel binding site that is distal to the active site of PTP-1B or TC-PTP (pp. 3-4, ¶¶ [0018] and [0019]), the specification further states the exosite is “an adaptive binding site on PTP-1B comprising at least one (more preferably at least two residues) selected from the group consisting of: Glu-186; Ser-187; Pro-188; Ala-189; Leu-192; Asn-193; Phe-196; Lys-197; Arg-199; Glu-200; Leu-272; Glu-276; Gly-277; Lys-279; Phe-280; Ile-281; and Met-282” (paragraph 30), “[i]n the presence of a suitable ligand, one or more of these residues form an adaptive binding site that is not normally present,” (paragraph 30), and “[t]he exosite is referred to as an adaptive binding site because the presence of a suitable ligand induces major conformational rearrangement in the enzyme that creates the exosite binding site” (paragraph 32).

Applicant’s argument is not found persuasive. The examiner maintains that the terms “the exosite of PTP-1B,” “the exosite mutant,” and the “the exosite of TC-PTP” are indefinite and lack antecedent basis. Considering that PTP-1B comprises Glu-186; Ser-187; Pro-188; Ala-189; Leu-192; Asn-193; Phe-196; Lys-197; Arg-199; Glu-200; Leu-272; Glu-276; Gly-277; Lys-279; Phe-280; Ile-281; and Met-282, this definition encompasses essentially any alternative binding site of a PTP-1B or TC-PTP. It is noted that the prior art reference of Hansen et al. (*Biochemistry* 44:7704-7712, 2005) discloses a second allosteric “adaptive binding site” of PTP-1B comprising Glu-186; Ser-187; Pro-188; Ala-189; Leu-192; Asn-193; Phe-196; Lys-197; Arg-199; Glu-200;

Art Unit: 1656

Leu-272; Glu-276; Gly-277; Lys-279; Phe-280; Ile-281; and Met-282 (p. 7704, abstract).

Thus, even in view of the specification's non-limiting "definition" of "exosite," it remains unclear as to the region of a PTP-1B or TC-PTP that applicant intends as being the exosite such that a skilled artisan would recognize the metes and bounds of the term in order to determine the scope of the claimed invention.

**[12]** The rejection of claims 47, 49-56, and 58-64 as being indefinite in the recitation of "activity of PTP-1B" or "activity of TC-PTP" is withdrawn in view of the amendment to the claims. Claims 47, 49, 56, and 58 have been amended to recite "phosphatase activity" in the preamble. Thus, it is clear that "the activity" as recited in the body of the claims refers to "phosphatase activity." Further, while there is no such antecedent basis for "the activity of an exosite mutant" in claims 50 and 59, it is noted that the claims recite a comparison step between "the activity" of PTP-1B or TC-PTP and thus a skilled artisan would recognize that the comparison is between the phosphatase activity of PTP-1B or TC-PTP and the "exosite mutant."

**[13]** The rejection of claims 47-64 as being incomplete is withdrawn in view of applicant's argument and upon reconsideration of the claims in view of the specification.

**[14]** The rejection of claims 49, 54-55, 58, and 62-64 as being indefinite in the recitation of specific amino acid positions without reciting a reference sequence is maintained for the reasons of record and the reasons stated below.

RESPONSE TO ARGUMENT: Applicant argues PTP-1B and TC-PTP are well described and characterized and the specification provides representative examples of PTP-1B and provides a representative example of TC-PTP as SEQ ID NO:2.

Applicant's argument is not found persuasive. The examiner has construed claims 49, 54-55, 58, and 62-64 as meaning a PTP-1B or TC-PTP polypeptide that has the recited amino acid at the recited position. In other words, Glu-186 is interpreted as meaning that the PTP-1B or TC-PTP has a glutamate residue at its position 186. Neither the specification nor applicant's response would suggest otherwise. However, a review of the sequences alleged to be TC-PTP indicates that none of the sequences has a Glu at position 186. For example, the human TC-PTP of Figure 1 appears to have glycine at position 186. Also, the TC-PTP of SEQ ID NO:2 has Pro at position 186. As such, it is unclear as to applicant's intended amino acid that is referenced in the claims.

***Claim Rejections - 35 USC § 112, First Paragraph***

**[15]** The written description rejection of claims 47-64 under 35 U.S.C. 112, first paragraph, is maintained for the reasons of record and the reasons stated below. The rejection was fully explained in the prior Office action.

RESPONSE TO ARGUMENT: Applicant argues PTP-1B and TC-PTP polypeptides were well described and characterized at the time of the invention. Applicant argues the specification discloses characteristic structural features of a PTP amino acid sequence that impart PTP activity and further discloses characteristic functional features that are shared by PTPs. Applicant argues the specification

Art Unit: 1656

discloses representative species of PTP-1B and TC-PTP. According to applicant, in view of this disclosure the specification adequately describes all PTP-1B and TC-PTP polypeptides as encompassed by the claims.

Applicant's argument is not found persuasive. MPEP 2111 states, "[d]uring patent examination, the pending claims must be 'given their broadest reasonable interpretation consistent with the specification.'" The claims require a method of "determining the activity" of PTP-1B or TC-PTP in determining whether a compound is an exosite inhibitor or not, which, in view of the teachings of the specification (p. 12, paragraph 46), has been interpreted as meaning the use of an "exosite mutant" of PTP-1B or TC-PTP and as noted above, an "exosite mutant" encompasses essentially any mutant of an alternative "adaptive" binding site of a PTP-1B or TC-PTP, which encompasses widely variant species, the variation of which is not reflected by the disclosed species, particularly as Hansen et al. (*supra*) discloses the identification of an alternative binding site in PTP-1B, which was not described in the specification nor the prior art at the time of the invention.

Given the lack of description of a representative number of polypeptides, the specification fails to sufficiently describe the claimed invention in such full, clear, concise, and exact terms that a skilled artisan would recognize that applicant was in possession of the claimed invention.



**[16]** The scope of enablement rejection of claims 47-64 under 35 U.S.C. 112, first paragraph, is maintained for the reasons of record and the reasons stated below. The rejection was fully explained in the prior Office action.

RESPONSE TO ARGUMENT: Regarding the breadth of the claims, applicant argues the claims recite a method for identifying an exosite inhibitor of PTP, the specification "clearly teaches the various PTP-1B and TC-PTP polypeptides," the method requires no unknown or undescribed research methods, and the Office action fails to explain why the specification does not support the full scope of the claimed invention. Applicant argues there is no reason to conclude that the "exosite mutant" is catalytically inactive. According to applicant, the disclosure sufficiently enables the full scope of the claimed invention.

Applicant's argument is not found persuasive. The examiner maintains the position that the specification fails to enable the full scope of the claimed invention. MPEP 2111 states, "[d]uring patent examination, the pending claims must be 'given their broadest reasonable interpretation consistent with the specification.'" The claims require a method of "determining the activity" of PTP-1B or TC-PTP in determining whether a compound is an exosite inhibitor or not, which, in view of the teachings of the specification (p. 12, paragraph 46), has been interpreted as meaning the use of an "exosite mutant", which, as noted above, encompasses any mutant of a PTP-1B that "is a PTP-1B wherein at least one of the PTP-1B exosite-forming residues has been modified to a different amino acid such that the resulting PTP-1B is no longer capable of being inhibited through the exosite site or displays a diminished capacity (less than

Art Unit: 1656

about 75% inhibition compared to SEQ ID NO.1 for a known exosite inhibitor such as compound 5; preferably less than about 50%, more preferably less than about 25%) of being inhibited through the exosite" (paragraph 44) or any mutant of TC-PTP that "is a TC-PTP wherein at least one of the TC-PTP exosite-forming residues has been modified to a different amino acid such that the resulting TC-PTP is no longer capable of being inhibited through the exosite site or displays a diminished capacity (less than about 75% inhibition compared to SEQ ID NO.2 for a known exosite inhibitor such as compound 5; preferably less than about 50%; and more preferably less than about 25%) of being inhibited through the exosite" (paragraph 49). As noted above, the term "exosite" encompasses essentially any alternative "adaptive" binding site of a PTP-1B or TC-PTP.

Regarding the state of the prior art, the level of one of ordinary skill, and the level of predictability in the art, applicant argues the structure-function relationship of PTP-1B and TC-PTP were well known, methods of altering a protein sequence were well known, the claimed methods do not require mutating or altering a protein sequence, and the screening procedures in the specification are routine and the level of unpredictability is low and thus the specification fully enables the full scope of the claimed invention.

Applicant's argument is not found persuasive. MPEP 2111 states, "[d]uring patent examination, the pending claims must be 'given their broadest reasonable interpretation consistent with the specification.'" While not specifically recited, the claims clearly encompass the use of an exosite mutant PTP-1B or TC-PTP in the method. See particularly specification paragraph 42. As noted above, the "exosite mutant" essentially

Art Unit: 1656

encompasses any mutant of an alternative “adaptive” binding site of a PTP-1B or TC-PTP. While methods of altering the protein sequence of a polypeptide were known at the time of the invention, the effects of such alteration on a protein’s amino acid sequence are highly unpredictable, which is undisputed by applicant and the

Regarding the amount of direction provided by the inventor and the existence of working examples, applicant argues the specification teaches a large number of different structural permutations of PTP-1B and TC-PTP that may be used in the claimed method and methods for cloning and generating such mutants, teaches various structural characteristics of PTP-1B and TC-PTP allegedly providing sufficient guidance in making amino acid alterations, and provides examples of different inhibitors and methods of identifying exosite inhibitors.

Applicant’s argument is not found persuasive. While the specification discloses specific working examples of “exosite mutants” (pp. 28-29, ¶¶ [0108] to [0111]), it is noted that claims are not limited to any specific exosite mutants and there is no indication that – other than those specific working examples – any of the “at least one hundred” structural variants maintains the desired activity/utility, which is relevant given the high level of unpredictability in altering a protein’s amino acid sequence, which is undisputed by applicant. While it is acknowledged that the specification provides guidance regarding structural features of PTP-1B and TC-PTP, it is not routine in the art to generate *all* mutant PTP-1B and/or TC-PTP polypeptides as broadly encompassed by the claims to screen for those that achieve or maintain the desired activity/utility. Further, other than the amino acids as identified in Figures 3, the specification fails to

Art Unit: 1656

point to or identify other exosites, which would appear to present in at least the PTP-1B polypeptide as evidenced by Hansen et al. (*supra*), and, in view of the non-limiting "definition" of "exosite" as noted above, would appear to be encompassed by the claims.

According to applicant, their analysis demonstrates the specification enables the claimed invention and without reason to doubt the truth, the application "must be considered enabling." Applicant argues it is improper to limit the enablement to the working examples, that routine experimentation is permissible – even a considerable amount of experimentation – if it is routine, and that the examiner has failed to present a *prima facie* case of lack of an enabling disclosure.

Applicant's argument is not found persuasive. At least for the reasons of record and the reasons stated above, the examiner has set forth an analysis of the Factors of *In re Wands* that, when taken as a whole, would support the examiner's position that the specification fails to enable the full scope of the claims. In this case, while methods of isolating or generating variants of a polypeptide were known in the art at the time of the invention, it was not routine in the art to screen – by a trial and error process – for all alternative binding sites as encompassed by the claims and to make all polypeptide variants having a substantial number of substitutions or modifications as encompassed by the claims for those that have the desired utility.

Thus, in view of the overly broad scope of the claims, the lack of guidance and working examples provided in the specification, the high level of unpredictability as evidenced by the prior art, and the amount of required experimentation, undue

experimentation would be necessary for a skilled artisan to make and use the entire scope of the claimed invention.

***Claim Rejections - 35 USC § 102***

**[17]** The rejection of claims 49 and 53-55 under 35 U.S.C. 102(b) as being anticipated by Wrobel et al. (*J. Med. Chem.* 42:3199-3202) is maintained for the reasons of record and the reasons set forth below. The rejection was fully explained in the prior Office action. Upon reconsideration of the rejection, claims 47-48 and 52 have been included in the instant rejection for reasons that follow. As such, this Office action is non-final. Thus, claims 47-49 and 52-55 are rejected.

RESPONSE TO ARGUMENT: Applicant argues that in view of the amendment to claim 49, "the test compound is one that is an exosite inhibitor of PTP-1B." Applicant further argues the reference of Wrobel et al. fails to teach all limitations of the claims because Wrobel et al. "do not teach nor suggest the method for assaying the inhibitory activity of compounds that are exosite inhibitors of PTP-1B nor that the protein is an exosite mutant of PTP-1B."

Applicants' argument is not found persuasive. The claimed method requires two steps: 1) a contacting step between a test compound and a PTP-1B comprising one or more amino acid residues as recited in the claims and 2) determining the activity of PTP-1B with the test compound. As noted in the prior Office action, the reference of Wrobel et al. teaches a method for assaying the inhibitory activity of compounds against recombinant human PTP-1B by contacting the compounds with recombinant human

Art Unit: 1656

PTP-1B in the presence of a phosphotyrosyl dodecapeptide substrate (p. 3199, right column, bottom and Tables 1 and 2). Contrary to applicant's position, the claim does not require that the test compound be an "exosite inhibitor" – only a "test compound." Also contrary to applicant's position, the polypeptide used in the contacting step need only have one of the recited residues, which appear to be the residues of a "wild-type" or "non-mutant" PTP-1B polypeptide. Put another way, the claim encompasses the use of a "wild-type" or "non-mutant" PTP-1B polypeptide and does not require the use of a mutant PTP-1B polypeptide. As further noted in the prior Office action, while Wrobel et al. is silent as to the amino acid sequence of the recombinant human PTP-1B used in the inhibitory assays, the polypeptide used in the reference of Wrobel et al. appears to be identical to the recombinant human PTP-1B disclosed in the specification, which comprises the recited amino acids, and which is undisputed by applicant. As such, the reference of Wrobel et al. anticipates the claimed invention.

As noted above, claims 47-48 have been included in the instant rejection. Claim 47 is drawn to a method of identifying an exosite inhibitor of PTP-1B by: contacting the exosite of PTP-1B with a test compound and determining the activity of PTP-1B with the test compound. Claim 48 limits the activity of PTP-1B to phosphate removal upon binding to the active site. As noted in the prior Office action, the reference of Wrobel et al. teaches a method for assaying the inhibitory activity of compounds against recombinant human PTP-1B by contacting the compounds with recombinant human PTP-1B in the presence of a phosphotyrosyl dodecapeptide substrate (p. 3199, right column, bottom and Tables 1 and 2) with PTP-1B activity being measured by monitoring

Art Unit: 1656

phosphate release (p. 3199, right column, bottom). The specification fails to define "contacting" and the examiner has referred to a dictionary meaning of the term "contact" in construing the meaning of the claim. According to an online dictionary (encarta.msn.com, last viewed on 25 October 2006), "contact" can mean "two or more things...actually touch or strike against one another." While it is acknowledged that Wrobel et al. do not specifically teach "contact" between the disclosed PTP-1B inhibitors and a PTP-1B "exosite," as the exosite of PTP-1B is necessarily ligand accessible, it is the examiner's position that such "contacting" between a PTP-1B exosite and a test compound would be an inherent characteristic of the screening assay of Wrobel et al. Put another way, the inhibitors and the exosite of PTP-1B of the screening assay of Wrobel et al. would necessarily *at least* make an instantaneous contact, *i.e.*, touch or strike each other.

Claim 52 has also been included in the instant rejection. Although claim 52 recites "wherein *the exosite inhibitor* is an organic polycyclic aromatic compound" (emphasis added), the examiner has construed "*the exosite inhibitor*" of claim 52 as meaning "the test compound" is an organic polycyclic aromatic compound. The inhibitors of Wrobel et al. are organic polycyclic aromatic compounds (p. 3200).

**[18]** The rejection of claims 58 and 62-64 under 35 U.S.C. 102(a) as being anticipated by Asante-Appiah et al. (*J. Biol. Chem.* 276:26036-26043) is maintained for the reasons of record and the reasons set forth below. The rejection was fully explained in the prior Office action. Upon reconsideration of the rejection, claims 56-57 have been included in

Art Unit: 1656

the instant rejection for reasons that follow. As such, this Office action is non-final. Thus, claims 56-58 and 62-64 are rejected.

RESPONSE TO ARGUMENT: Applicant argues that in view of the amendment to claim 58, "the test compound is one that is an exosite inhibitor of TC-PTP." Applicant further argues the reference of Asante-Appiah et al. fails to teach all limitations of the claims because Asante-Appiah et al. "do not teach nor suggest the method for assaying the inhibitory activity of compounds that are exosite inhibitors of TC-PTP having one or more of the recited residues, nor that the protein has phosphatase activity and comprises an exosite of TC-PTP."

Applicants' argument is not found persuasive. The claimed method requires two steps: 1) a contacting step between a test compound and TC-PTP comprising one or more amino acid residues as recited in the claims and 2) determining the activity of TC-PTP with the test compound. As noted in the prior Office action, The reference of Asante-Appiah et al. teaches a method for assaying the inhibitory activity of compounds against recombinant human TC-PTP by contacting the compounds with recombinant human TC-PTP in the presence of various substrates (p. 26037, right column, Figure 2, and Tables IV-VI). Contrary to applicant's position, the claim does not require that the test compound be an "exosite inhibitor" – only a "test compound." Also contrary to applicant's position, the polypeptide used in the contacting step need only have one of the recited residues, which appear to be the residues of a "wild-type" or "non-mutant" TC-PTP polypeptide. As further noted in the prior Office action, while Asante-Appiah et al. is silent as to the amino acid sequence of the recombinant human TC-PTP used in



Art Unit: 1656

the inhibitory assays, the polypeptide used in the reference of Asante-Appiah et al. appears to be identical to the recombinant human TC-PTP disclosed in the specification, which comprises the recited amino acids, and which is undisputed by applicant. Further, that the TC-PTP of Asante-Appiah et al. has phosphatase activity is shown by Tables I-III. As such, the reference of Asante-Appiah et al. anticipates the claimed invention.

As noted above, claims 56-57 have been included in the instant rejection. Claim 56 is drawn to a method of identifying an exosite inhibitor of TC-PTP by: contacting the exosite of TC-PTP with a test compound and determining the activity of TC-PTP with the test compound. Claim 57 limits the activity of TC-PTP to phosphate removal upon binding to the active site. As noted in the prior Office action, the reference of Asante-Appiah et al. teaches a method for assaying the inhibitory activity of compounds against recombinant human Asante-Appiah et al. by contacting the compounds with recombinant human TC-PTP in the presence of various substrates (p. 26037, right column, Figure 2, and Tables IV-VI) with TC-PTP activity being measured by monitoring phosphate release (p. 26037, right column, middle). The specification fails to define "contacting" and the examiner has referred to a dictionary meaning of the term "contact" in construing the meaning of the claim. According to an online dictionary (encarta.msn.com, last viewed on 25 October 2006), "contact" can mean "two or more things...actually touch or strike against one another." While it is acknowledged that Wrobel et al. do not specifically teach "contact" between the disclosed TC-PTP inhibitors and a TC-PTP "exosite," as the exosite of TC-PTP is necessarily ligand

Art Unit: 1656

accessible, it is the examiner's position that such "contacting" between a TC-PTP exosite and a test compound would be an inherent characteristic of the screening assay of Wrobel et al. Put another way, the inhibitors and the exosite of TC-PTP of the screening assay of Wrobel et al. would necessarily *at least* make an instantaneous contact, *i.e.*, touch or strike each other.

### **Conclusion**

**[19]** Status of the claims:

Claims 47-64 are pending.


Claims 47-64 are rejected.

No claim is in condition for allowance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David J. Steadman whose telephone number is 571-272-0942. The examiner can normally be reached on Mon to Fri, 7:30 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Kerr can be reached on 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
David J. Steadman, Ph.D.  
Primary Examiner  
Art Unit 1656